

t9_yellow_7

(TMX4qd5bcfM24w2CsC2a3jQKDtBFJ8SVX8h)

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Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_lattice3 : \iota \Rightarrow \iota$ be given. Let $r1_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.((r1_lattice3 X0 X2 X1) \Rightarrow (r2_lattice3 (k7_lattice3 \\ & X0) X2 (k8_lattice3 X0 X1))) \wedge (((r2_lattice3 (k7_lattice3 X0) X2 \\ & (k8_lattice3 X0 X1)) \Rightarrow (r1_lattice3 X0 X2 X1)) \wedge (((r2_lattice3 X0 \\ & X2 X1) \Rightarrow (r1_lattice3 (k7_lattice3 X0) X2 (k8_lattice3 X0 X1))) \wedge \\ & ((r1_lattice3 (k7_lattice3 X0) X2 (k8_lattice3 X0 X1)) \Rightarrow (r2_lattice3 \\ & X0 X2 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((l1_orders_2 X0) \wedge (m1_subset_1 X1 (u1_struct_0 (k7_lattice3 X0)))) \Rightarrow (m1_subset_1 (k9_lattice3 X0 X1) (u1_struct_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k7_lattice3 X0))) \Rightarrow (k9_lattice3 X0 X1 = X1)) \quad (3)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k8_lattice3 X0 X1 = X1)) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & (k7_lattice3 X0))) \Rightarrow (\forall X2.((r1_lattice3 (k7_lattice3 X0) \\ & X2 X1) \Rightarrow (r2_lattice3 X0 X2 (k9_lattice3 X0 X1))) \wedge (((r2_lattice3 \\ & X0 X2 (k9_lattice3 X0 X1)) \Rightarrow (r1_lattice3 (k7_lattice3 X0) X2 X1)) \wedge \\ & (((r2_lattice3 (k7_lattice3 X0) X2 X1) \Rightarrow (r1_lattice3 X0 X2 (k9_lattice3 \\ & X0 X1))) \wedge ((r1_lattice3 X0 X2 (k9_lattice3 X0 X1)) \Rightarrow (r2_lattice3 \\ & (k7_lattice3 X0) X2 X1)))))) \end{aligned}$$